PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

	Date of mailing *(day/month/year)*
Applicant's or agent's file reference **PH-2153-PCT**	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2004/006913	**14.05.2004**	**16.05.2003**

International Patent Classification (IPC) or both national classification and IPC

Applicant
HOUSE FOODS CORPORATION

1. This opinion contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☒	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material

      ☒ a sequence listing

      ☐ table(s) related to the sequence listing

   b. format of material

      ☐ in written format

      ☒ in computer readable form

   c. time of filing/furnishing

      ☐ contained in the international application as filed.

      ☒ filed together with the international application in computer readable form.

      ☐ furnished subsequently to this Authority for the purposes of search.

3. ☒ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. IV **Lack of unity of invention**

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:

   ☐ paid additional fees

   ☐ paid additional fees under protest

   ☒ not paid additional fees

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

   See supplemental box.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

   ☐ all parts

   ☒ the parts relating to claims Nos. 1-9, 13-28

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-9, 13-28	YES
	Claims		NO
Inventive step (IS)	Claims	1-9, 15, 16, 18-28	YES
	Claims	13, 14, 17	NO
Industrial applicability (IA)	Claims	1-9, 13-28	YES
	Claims		NO

2. Citations and explanations:

Document 1: Allergy Busshitsu wo Fukumu Shokuhin no Kensa Houhou nitsuite, Kaku Todoufukenchiji/Kakuseireishishichou/Kakutokubetsukukuchou ate Kouseiroudoushou Iyakukyoku Shokuhin Hoken Buchou Tsuuchi (06 November 2002), Foodstuff Publication No. 1106001.

Document 2: MATSUOKA T. et al., A multiplex PCR method of detecting recombinant DNAs from five lines of genetically modified maize, J. Food Hyg. Soc. Japan (2001), Vol. 42, No. 1, p. 24-32

Claim 13

The inventions of claim 13 do not appear to possess novelty or to involve an inventive step based on documents 1 and 2.

Document 1 describes CP03-5' and CP03-3' primer pair for detection of plant DNA selected with a gene that maintains a wide distribution throughout the plant kingdom and is used to detect peanuts, soba, and wheat in food product materials (document 1 page 13).

Document 2 describes TR03 and TR03 primer pair for detection of plant DNA selected with a gene that maintains a wide distribution throughout the plant kingdom and is used to confirm detectability of soy beans, rice, wheat and barley in food product materials (document 1, page 13).

Food production materials in document 3:

These primer pairs correspond to the primer set used in standard plant material detection in the invention of the present application.

Consequently, the inventions of claim 13 cannot be differentiated from the inventions described in document 1 and document 2.

Claim 14

The inventions of claim 14 do not appear to involve an inventive step based on documents 1 and 2.

Documents 1 and 2 do not describe a probe used in standard plant material detection, but detection with a detection probe of a sample amplified with primer is a normal practice, and the addition of a probe to a kit for this reason does not pose a difficulty.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of Box III:

The inventions of any plant quantitation methods described in claim 1 and in claims 2-9 citing claim 1 and specific plant sample detection kits including standard plant material detection primer described in claim 13 and in claims 14-28 citing claim 13 have a point of commonality only in that they related to primer for standard plant material detection used when detecting specific plants.

In addition, the statice detection primer kit described in claim 10, the soba genus detection primer kit described in claim 11, and the peanut detection primer kit described in claim 12 all do not use primers limited to quantification of any plant including any standard plant material detection processes, and because primers differ in chemical structure, the only point of commonality is that they are inventions relating to primers for detection of respectively specified plants.

However, documents 1-7 describe primers for detection of specified plants.

Thus, being primers for detection of specified plants is not a special technical feature according to PCT Rule 13.2.

Thus, the inventions described in claims 1-28 are not a group of inventions so linked as to form a single general inventive concept; inventions relating to these 4 inventions compose a group of inventions: quantitation methods of claims 1-9 and 13-28 and primer sets for those, a statice detection primer kit described in claim 10, a soba genus detection primer kit described in claim 11, and a peanut detection primer kit described in claim 12.

Document 1: JP 2001-136983 A
Document 2: JP 2001-238700 A
Document 3: JP 2002-536024 A
Document 4: JP 2003-135082 A
Document 5: WO 02/34943 A
Document 6: MATSUOKA T. et al., A multiplex PCR method of detecting recombinant DNAs from five lines of genetically modified maize, J. Food Hyg. Soc. Japan (2001), Vol. 42, No.1, p.24-32
Document 7: Allergy Busshitsu wo Fukumu Shokuhin no Kensa Houhou nitsuite, Kaku Todoufukenchiji/Kakuseireishishichou/Kakutokubetsukukuchou ate Kouseiroudoushou Iyakukyoku Shokuhin Hoken Buchou Tsuuchi (06 November 2002), Foodstuff Publication No. 1106001

Supplemental Box
Continuation of Box V:

Claim 17

The inventions of claim 17 do not appear to involve an inventive step based on documents 1 and 2.

Documents 1 and 2 describe amplification and confirmation with a primer for the detection of a specified plant genus for the detection target (document 1, pages 13-18; document 2, table 1, page 27); addition of a primer for the detection of a specified plant genus does not pose a difficulty.

Claims 1-9

The inventions of claims 1-9 appear to possess novelty and to involve an inventive step over documents 1-2 and documents cited in the ISR.

Detection methods of the quantity of plant of a specific plant genus using samples modified so as to be of a predetermined ratio of specified plant genus-derived material and standard plant material, and test samples wherein a known quantity of standard plant material was added to a sample target food product or food product material are neither described in documents 1-2 nor easily invented based on these documents by a person skilled in the art.

Claims 15, 16, and 18-28

The inventions of claims 15, 16, and 18-28 appear to possess novelty and to involve an inventive step over documents 1-2 and documents cited in the ISR.

Kits including a polyoligonucleotide probe and oligonucleotide primer having a specific sequence able to be used in detection of specified plants that are detection targets are neither described in documents 1-2 nor easily invented based on these documents by a person skilled in the art.